

**METHOD AND APPARATUS TO REDUCE RF POWER DEPOSITION DURING  
MR DATA ACQUISITION**

**ABSTRACT**

5           A system composed of multiple transmit coils with corresponding RF pulse  
synthesizers and amplifiers is disclosed. A method of designing RF pulses specific to  
each transmit coil to dynamically control RF power deposition across an imaging volume  
is also disclosed, where parallel excitation with the transmit coils allows for management  
of RF power deposition on a subject while facilitating faithful production of a desired  
10   excitation profile. The present invention also supports reduction in scan time and is  
applicable to any coil array geometry.